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# Dyslexia

The definition of dyslexia is included in Minnesota Statutes, section 125A.01. As stated in statute, "dyslexia" means a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate or fluent recognition of words and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge. Students who have a dyslexia diagnosis must meet the state and federal eligibility criteria in order to qualify for special education services.

The Minnesota Department of Education (MDE) dyslexia team is currently focusing on supporting school efforts to screen and identify students with characteristics of dyslexia and develop teacher capacity to provide evidence-based reading instruction.

## Parent Support and Advocacy

The role of the dyslexia specialist is to provide technical assistance and serve as the primary source of information and support for Minnesota schools in addressing the needs of students with dyslexia. The following organizations provide supports to parents such as consultation, education, resources and advocacy: PACER, Learning Disabilities Association (LDA) of Minnesota and Decoding Dyslexia of Minnesota (DDMN) (see Related Links). If there are concerns about compliance with service plans and rights and procedural safeguards contact MDE's Compliance and Assistance Division.

## Dyslexia Information for Parents and Educators

- Dyslexia and Specific Learning Disabilities – presentation by Amy Schulting and Vicki Weinberg at the March 8, 2019, Special Education Directors' Forum
- Dyslexia Screening and Identification – presentation by Amy Schulting and Vicki Weinberg at the December 7, 2018, Special Education Directors' Forum: view Part 1; view Part 2; view Part 3
- Teaching Exceptional Children Journal – Dyslexia Issue
- Dyslexia in the Classroom: What Every Teacher Needs to Know
- Dyslexia Toolkit: An Essential Resource provided by the National Center on Learning Disabilities
- U.S. Department of Education 2015 letter regarding use of the term dyslexia
- Parent and Educator Resource Guide to Section 504 (specific dyslexia examples included)

# Current Statutes Defining Dyslexia and Requirements

- Minnesota Statutes, section 122A.06: Defines comprehensive, scientifically based reading instruction.
- Minnesota Statutes, section 125A.01: Defines dyslexia.
- Minnesota Statutes, section 120B.12: Reading Proficiently No Later than the End of Grade 3.
- Minnesota Statutes, section 120B.122: Dyslexia Specialist.
- Minnesota Rules, part 3525.1341: Identification of Specific Learning Disability.
- Minnesota Statutes, section 125A.56: Alternate Instruction Required Before Assessment Referral.
- Minnesota Statutes, section 125A.50: Alternative Delivery of Specialized Instructional Supports.

## MDE Informational Papers and Guidance

- Teacher Checklist for Characteristics of Dyslexia: Designed to consolidate multiple sources of information. Should be completed within six weeks of the first universal screening. Organized into categories that match the Four Part Processing Model of Word Recognition.
- Screening and Identifying Characteristics of Dyslexia: Guidance and resources including universal screening tools, integrating data and submitting findings into the Read Well Data Plan.
- Navigating the School System When a Child is Struggling with Reading or Dyslexia: Answers to frequently asked questions about providing evidence-based supports for students with dyslexia and those who struggle with reading.
- Recommended Universal Screening Tool List Criteria and Selection Process (2018-2019)
- List of Universal Screening Tools for Identifying Characteristics of Dyslexia: With publisher contact and other information.

## Recommended Professional Development Opportunities

Teachers request information on where to learn more or get training. The following options are not exhaustive but come highly recommended by the International Dyslexia Association.

- **Reading Rockets** (Reading 101 modules and other resources). Reading 101 was produced in collaboration with the Center for Effective Reading Instruction and The International Dyslexia Association. These nine modules are provided online for free and prepare teachers to take the Certification Exam for Educators of Reading Instruction (CEERI).
- **Language Essentials for Teachers of Reading and Spelling (LETRS)**. This professional development program can be used regardless of the literacy program used in a school. Modules are also available for early childhood educators, administrators and principals.
- **Knowledge and Practice Standards for Teachers of Reading**, International Dyslexia Association (IDA) and Center for Effective Reading Instruction (CERI). Information provided about structured literacy certification for educators and accredited university programs.



## Effective Reading Instruction for Students with Dyslexia

The most difficult problem for students with dyslexia is learning to read. Unfortunately, popularly employed reading approaches, such as Guided Reading or Balanced Literacy, are not effective for struggling readers. These approaches are especially ineffective for students with dyslexia because they do not focus on the decoding skills these students need to succeed in reading.

What does work is *Structured Literacy*, which prepares students to decode words in an explicit and systematic manner. This approach not only helps students with dyslexia, but there is substantial evidence that it is more effective for *all* readers.

### **Structured literacy instruction is marked by several elements.**

**Phonology.** Phonology is the study of sound structure of spoken words and is a critical element of *Structured Language* instruction. Phonological awareness includes rhyming, counting words in spoken sentence, and clapping syllables in spoken words. An important aspect of phonological awareness is phonemic awareness or the ability to segment words into their component sounds, which are called phonemes. A phoneme is the smallest unit of sound in a given language that can be recognized as being distinct from other sounds in the language. For example, the word *cap* has three phonemes (/k/, /ă/, /p/), and the word *clasp* has five phonemes (/k/, /l/, /ă/, /s/, /p/).

**Sound-Symbol Association.** Once students have developed the awareness of phonemes of spoken language, they must learn how to map the phonemes to symbols or printed letters. Sound-symbol association must be taught and mastered in two directions: visual to auditory (reading) and auditory to visual (spelling). Additionally,

students must master the blending of sounds and letters into words as well as the segmenting of whole words into the individual sounds. The instruction of sound-symbol associations is often referred to as phonics. Although phonics is a component of *Structured Literacy*, it is embedded within a rich and deep language context.

**Syllable Instruction.** A syllable is a unit of oral or written language with one vowel sound. Instruction includes teaching of the six basic syllable types in the English language: closed, vowel-consonant-*e*, open, consonant-*le*, *r*-controlled, and vowel pair. Knowledge of syllable types is an important organizing idea. By knowing the syllable type, the reader can better determine the sound of the vowel in the syllable. Syllable division rules heighten the reader's awareness of where a long, unfamiliar word may be divided for great accuracy in reading the word.

**Morphology.** A morpheme is the smallest unit of meaning in the language. The Structured Literacy curriculum includes the study of base words, roots, prefixes, and suffixes. The word instructor, for example, is contains the root *struct*, which means *to build*, the prefix *in*, which means *in* or *into*, and the suffix *or*, which means *one who*. An instructor is one who builds knowledge in his or her students.

**Syntax.** Syntax is the set of principles that dictate the sequence and function of words in a sentence in order to convey meaning. This includes grammar, sentence variation, and the mechanics of language.

**Semantics.** Semantics is that aspect of language concerned with meaning. The curriculum (from the beginning) must include instruction in the comprehension of written language.

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**Structured Literacy is distinctive in the principles that guide how critical elements are taught.**

**Systematic and Cumulative.** *Structured Literacy* instruction is systematic and cumulative. Systematic means that the organization of material follows the logical order of the language. The sequence must begin with the easiest and most basic concepts and elements and progress methodically to more difficult concepts and elements. Cumulative means each step must be based on concepts previously learned.

**Explicit Instruction.** *Structured Literacy* instruction requires the deliberate teaching of all concepts with continuous student-teacher interaction. It is not assumed that students will naturally deduce these concepts on their own.

**Diagnostic Teaching.** The teacher must be adept at individualized instruction. That is instruction that meets a student's needs. The instruction is based on careful and continuous assessment, both informally (for example, observation) and formally (for example, with standardized measures). The content presented must be mastered to the degree of automaticity. Automaticity is critical to freeing all the student's attention and cognitive resources for comprehension and expression.

### References

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## DYSLEXIA BASICS

### What is dyslexia?

Dyslexia is a language-based learning disability. Dyslexia refers to a cluster of symptoms, which result in people having difficulties with specific language skills, particularly reading. Students with dyslexia usually experience difficulties with other language skills such as spelling, writing, and pronouncing words. Dyslexia affects individuals throughout their lives; however, its impact can change at different stages in a person's life. It is referred to as a learning disability because dyslexia can make it very difficult for a student to succeed academically in the typical instructional environment, and in its more severe forms, will qualify a student for special education, special accommodations, or extra support services.

### What causes dyslexia?

The exact causes of dyslexia are still not completely clear, but anatomical and brain imagery studies show differences in the way the brain of a person with dyslexia develops and functions. Moreover, most people with dyslexia have been found to have problems with identifying the separate speech sounds within a word and/or learning how letters represent those sounds, a key factor in their reading difficulties. Dyslexia is not due to either lack of intelligence or desire to learn; with appropriate teaching methods, students with dyslexia can learn successfully.

### How widespread is dyslexia?

About 13–14% of the school population nationwide has a handicapping condition that qualifies them for special education. Current studies indicate that one half of all the students who qualify for special education are classified as having a learning disability (LD) (6–7%). About 85% of those students have a primary

learning disability in reading and language processing. Nevertheless, many more people—perhaps as many as 15–20% of the population as a whole—have some of the symptoms of dyslexia, including slow or inaccurate reading, poor spelling, poor writing, or mixing up similar words. Not all of these will qualify for special education, but they are likely to struggle with many aspects of academic learning and are likely to benefit from systematic, explicit, instruction in reading, writing, and language.

Dyslexia occurs in people of all backgrounds and intellectual levels. People with dyslexia can be very bright. They are often capable or even gifted in areas such as art, computer science, design, drama, electronics, math, mechanics, music, physics, sales, and sports.

In addition, dyslexia runs in families; parents with dyslexia are very likely to have children with dyslexia. For some people, their dyslexia is identified early in their lives, but for others, their dyslexia goes unidentified until they get older.

### What are the effects of dyslexia?

The impact that dyslexia has is different for each person and depends on the severity of the condition and the effectiveness of instruction or remediation. The core difficulty is with word recognition and reading fluency, spelling, and writing. Some individuals with dyslexia manage to learn early reading and spelling tasks, especially with excellent instruction, but later experience their most debilitating problems when more complex language skills are required, such as grammar, understanding textbook material, and writing essays.

People with dyslexia can also have problems with spoken language, even after they have been exposed to good language models in their homes

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and good language instruction in school. They may find it difficult to express themselves clearly, or to fully comprehend what others mean when they speak. Such language problems are often difficult to recognize, but they can lead to major problems in school, in the workplace, and in relating to other people. The effects of dyslexia reach well beyond the classroom.

Dyslexia can also affect a person's self-image. Students with dyslexia often end up feeling "dumb" and less capable than they actually are. After experiencing a great deal of stress due to academic problems, a student may become discouraged about continuing in school.

### **How is dyslexia diagnosed?**

Before referring a student for a comprehensive evaluation, a school or district may choose to track a student's progress with a brief screening test and identify whether the student is progressing at a "benchmark" level that predicts success in reading. If a student is below that benchmark (which is equivalent to about the 40<sup>th</sup> percentile nationally), the school may immediately deliver intensive and individualized supplemental reading instruction before determining whether the student needs a comprehensive evaluation that would lead to a designation of special education eligibility. Some students simply need more structured and systematic instruction to get back on track; they do not have learning disabilities. For those students and even for those with dyslexia, putting the emphasis on preventive or early intervention makes sense. There is no benefit to the child if special instruction is delayed for months while waiting for an involved testing process to occur. These practices of teaching first, and then determining who needs diagnostic testing based on response to instruction, are encouraged by federal policies known as Response to Intervention (RTI). Parents should know, however, that at any point they have the right to request a comprehensive evaluation under the

IDEA law, whether or not the student is receiving instruction under an RTI model.

A comprehensive evaluation typically includes intellectual and academic achievement testing, as well as an assessment of the critical underlying language skills that are closely linked to dyslexia. These include receptive (listening) and expressive language skills, phonological skills including phonemic awareness, and also a student's ability to rapidly name letters and numbers. A student's ability to read lists of words in isolation, as well as words in context, should also be assessed. If a profile emerges that is characteristic of readers with dyslexia, an individualized intervention plan should be developed, which should include appropriate accommodations, such as extended time. The testing can be conducted by trained school or outside specialists. (See the Dyslexia Assessment Fact Sheet for more information.)

### **What are the signs of dyslexia?**

The problems displayed by individuals with dyslexia involve difficulties in acquiring and using written language. It is a myth that individuals with dyslexia "read backwards," although spelling can look quite jumbled at times because students have trouble remembering letter symbols for sounds and forming memories for words. Other problems experienced by people with dyslexia include the following:

- Learning to speak
- Learning letters and their sounds
- Organizing written and spoken language
- Memorizing number facts
- Reading quickly enough to comprehend
- Persisting with and comprehending longer reading assignments
- Spelling
- Learning a foreign language
- Correctly doing math operations

Not all students who have difficulties with these skills have dyslexia. Formal testing of reading,

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language, and writing skills is the only way to confirm a diagnosis of suspected dyslexia.

### **How is dyslexia treated?**

Dyslexia is a lifelong condition. With proper help, many people with dyslexia can learn to read and write well. Early identification and treatment is the key to helping individuals with dyslexia achieve in school and in life. Most people with dyslexia need help from a teacher, tutor, or therapist specially trained in using a multisensory, structured language approach. It is important for these individuals to be taught by a systematic and explicit method that involves several senses (hearing, seeing, touching) at the same time. Many individuals with dyslexia need one-on-one help so that they can move forward at their own pace. In addition, students with dyslexia often need a great deal of structured practice and immediate, corrective feedback to develop automatic word recognition skills. For students with dyslexia, it is helpful if their outside academic therapists work closely with classroom teachers.

Schools can implement academic accommodations and modifications to help students with dyslexia succeed. For example, a student with dyslexia can be given extra time to complete tasks, help with taking notes, and work assignments that are modified appropriately. Teachers can give recorded tests or allow students with dyslexia to use alternative means of assessment. Students can benefit from listening to audiobooks and using text reading and word processing computer programs.

Students may also need help with emotional issues that sometimes arise as a consequence of difficulties in school. Mental health specialists can help students cope with their struggles.

### **What are the rights of a person with dyslexia?**

The Individuals with Disabilities Education Act 2004 (IDEA), Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) define the rights of students with dyslexia and other specific learning disabilities. These individuals are legally entitled to special services to help them overcome and accommodate their learning problems. Such services include education programs designed to meet the needs of these students. The Acts also protect people with dyslexia against unfair and illegal discrimination.

### **Suggested Readings**

Moats, L. C., & Dakin, K. E. (2008). *Basic facts about dyslexia and other reading problems*. Baltimore: The International Dyslexia Association.

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